



# United States Patent [19]

Jackson et al.

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[54] FUSING CONTACT DATA FOR BEST-ESTIMATE SOLUTION

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[58] Field of Search ..... 367/99, 131, 124; 364/516

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## [57] ABSTRACT

A method of data fusion determines a best-estimate solution to a moving contact using a plurality of trackers that provide bearing-to-contact data and range-to-contact data. An averaging function is applied to the bearing-to-contact data to determine weighted-average bearing data associated with each tracker. The same averaging function is also applied to the range-to-contact data to determine weighted-average range data. A computed solution to the moving contact is generated using the weighted-average range data and the weighted average bearing data from the one tracker having the lowest standard deviation. A root mean square (RMS) error in terms of bearing is then determined for the computed solution and each of a plurality of independently generated solutions using bearing-to-contact data from the one tracker having the lowest standard deviation. One of the computed solution or the independently generated solutions that produces the lowest RMS error is considered to be the best-estimate solution.

6 Claims, 3 Drawing Sheets

